

Claims

What is claimed is:

1. A method of managing one or more computing resources, the method comprising the steps of:

5 obtaining data associated with at least one potential demand for use of the one or more computing resources; and

generating a management model in accordance with at least a portion of the obtained data, wherein the management model is operative to determine an allocation of the one or more computing resources based on combinations of price levels and service
10 levels that may be offered to one or more users of the one or more computing resources so as to attempt to satisfy at least one management goal.

2. The method of claim 1, wherein the management model generating step further comprises determining the allocation also based on at least one of historical data and predicted data associated with a demand pattern.

15 3. The method of claim 1, wherein the management model generating step further comprises determining the allocation also based on at least one of historical data and predicted data associated with a resource usage level.

20 4. The method of claim 1, wherein the management model generating step further comprises representing the at least one potential demand as one of a demand curve and a discrete choice model.

5. The method of claim 1, wherein the management model generating step further comprises aggregating at least one of historical data and predicted data associated with a resource usage level.

6. The method of claim 1, wherein the management model generating step further comprises setting price levels and service levels to be offered to users.

7. The method of claim 6, wherein the setting step is based on at least one of current data and predicted data.

5 8. The method of claim 6, wherein the at least one of current data and predicted data comprises at least one of demand data and resource data.

9. The method of claim 6, wherein the setting step is also based on a maximum number of price-service-level combinations.

10 10. The method of claim 9, wherein the management model generating step further comprises evaluating a revenue value for each price-service-level combination.

11. The method of claim 1, wherein the management model generating step further comprises solving the management resource model using one of a linear programming solver and a nonlinear programming solver.

15 12. The method of claim 1, wherein the management goal is at least one of: (i) achieving a revenue goal; (ii) increasing a market share; (iii) responding to a competitor; and (iv) smoothing a demand pattern.

13. The method of claim 1, wherein the one or more computing resources are associated with a computing center.

14. The method of claim 1, wherein the one or more computing resources are associated with an electronic utility.

15. The method of claim 1, wherein the management model comprises a yield management model.

5 16. The method of claim 1, wherein the management model comprises a revenue management model.

17. Apparatus for managing one or more computing resources, the apparatus comprising:

 a memory; and

10 at least one processor coupled to the memory and operative to: (i) obtain data associated with at least one potential demand for use of the one or more computing resources; and (ii) generate a management model in accordance with at least a portion of the obtained data, wherein the management model is operative to determine an allocation of the one or more computing resources based on combinations of price levels and
15 service levels that may be offered to one or more users of the one or more computing resources so as to attempt to satisfy at least one management goal.

18. An article of manufacture for managing one or more computing resources, comprising a machine readable medium containing one or more programs which when
20 executed implement the steps of:

 obtaining data associated with at least one potential demand for use of the one or more computing resources; and

 generating a management model in accordance with at least a portion of the obtained data, wherein the management model is operative to determine an allocation of

the one or more computing resources based on combinations of price levels and service levels that may be offered to one or more users of the one or more computing resources so as to attempt to satisfy at least one management goal.

5 19. A method of providing a service for managing one or more computing resources, comprising the step of:

 a service provider deploying a system operative to: (i) obtain data associated with at least one potential demand for use of the one or more computing resources; and (ii) generate a management model in accordance with at least a portion of the obtained data, wherein the management model is operative to determine an allocation of the one or
10 more computing resources based on combinations of price levels and service levels that may be offered to one or more users of the one or more computing resources so as to attempt to satisfy at least one management goal.